

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method for follow-up treatment of the contour of the surface of at least one as-formed convex optical lens, the method comprising:

providing ~~an~~ the as-formed convex optical lens which is made of glass or a glass-type material and which has a convex lens surface delimited by a circumferential line abutting on a plane section surrounding said circumferential line and which has an opposing surface of the lens facing the convex lens surface, and an elliptical gradient in the region of the circumferential line,

placing along said circumferential line of the as-formed convex optical lens on said plane section a means matching said circumferential line and at least laterally bordering said convex lens surface,

performing a temperature treatment comprising heating said as-formed convex optical lens to a temperature of at least the transformation temperature of said glass or glass-type material, wherein pressure equalization prevails between said convex lens surface and said opposing surface of the lens, and

removing said means from said optical lens after a period of time, during which said optical lens undergoes said temperature treatment and subsequent cooling below said transformation temperature

wherein the steps are performed in the recited sequence and result in the modification of the elliptical gradient.

2. (Original) The method according to claim 1, wherein the temperature and the period of time of said temperature treatment are selected according to the degree of change of the surface contour.

3. (Previously Presented) The method according to claim 1, comprising varying the pressure acting on said convex lens surface during said temperature treatment.

4. (Canceled)

5. (Previously Presented) The method according to claim 1, comprising pressing said means with force against said circumferential line.

6. (Currently Amended) The method according to claim 1, wherein said optical lens is produced by means of a glass-flow process or by means of contactless hot stamping of a thermoplastic material and has as a result of said process comprises an the elliptical gradient in the region of said circumferential line, and said temperature treatment is conducted in conjunction with said means bordering said circumferential line in such a manner that said elliptical gradient is ~~partially~~ reduced or completely eliminated.

7. (Previously Presented) The method according to claim 1, wherein said temperature treatment is conducted in conjunction with said means bordering said circumferential line in such a manner that the lateral geometric dimensions of said optical lens are retained.

8. (Previously Presented) The method according to claim 1, wherein the convex lens surface of said optical lens is raised above a horizontal plane during the temperature treatment.

9. (Previously Presented) The method according to claim 1, wherein said means is brought into contact with said optical lens without wetting the surface.

10. (Previously Presented) The method according to claim 1, wherein the at least one optical lens comprises a one-piece continuous array-like microlens having a multiplicity of single optical microlenses, which are spaced apart, by plane

sections, a means matching the arrangement and size of the circumference of the single microlenses is provided as a template, which is placed at least partly on said plane sections and surrounds said circumferential lines of said individual microlenses, and during said temperature treatment all said microlenses are heated uniformly and homogeneously.

11. (Previously Presented) The method according to claim 1, wherein said temperature treatment occurs in such a manner that a reduction of said convex lens surface stems solely from the surface tensions acting along said convex lens surface, with the lens material being forced out of the regions of said elliptical gradient on the convex-side into other regions of the lens body.

12. (Withdrawn-Previously Presented) A device for follow-up treatment of the contour of the surface of at least one optical lens, in particular a microlens which is made of glass or a glass-type material and which has a convex lens surface which is delimited by a circumferential line abutting on a plane section surrounding said circumferential line, wherein a means is provided which is designed as a template and has a cutout bordered by an edge which is flush with said circumferential line of said optical lens, and said cutout is otherwise designed in such a manner that said template can be placed on said plane section surrounding said circumferential line without touching said convex lens surface, and said means provides at least one opening opposite said cutout in such a manner that no closed volume occurs between said optical lens and said means after placing said means on said plane section surrounding said circumferential line.

13. (Withdrawn) The device according to claim 12, wherein said means is made of a material whose thermal expansion properties correspond to that of said glass or of said glass-type material.

14. (Withdrawn-Previously Presented) The device according to claim 12, wherein said means is designed as a multiple hole template whose single cutouts are selected in shape, size and arrangement according to an array-like multiple

microlens arrangement in such a manner that said multiple hole template comes in contact flush with said circumferential lines of said microlenses when said multiple hole template is placed on said plane sections of said multiple microlens arrangement surrounding said single microlenses.

15. (Withdrawn) Use of a device for follow-up treatment of the contour of the surface of at least one optical lens which is made of glass or a glass-type material having a convex shaped lens surface which is delimited by a circumferential line abutting on a plane section surrounding said circumferential line, whereby said device is provided with a means designed as a template having a cutout bordered by an edge which is flush with said circumferential line of said optical lens, said cutout being otherwise designed in such a manner that said template is placeable without touching said convex lens surface on said plane section surrounding said circumferential line, and said means provides at least one opening opposite said cutout in such a manner that no closed volume occurs between said optical lens and said means after placing said means on said plane section surrounding said circumferential line, in order to eliminate exceedingly steep elliptical gradients present at the edge region of said lens by means of a temperature treatment of said optical lens on which said template-like means lies and said edge region of said optical lens is leveled using a reflow process in such a manner that a spherical or parabolical shaped lens cross section is obtained.

16. (Canceled)

17. (Withdrawn-Previously Presented) Use according to claim 15, wherein a hyperbolic shaped lens cross section is obtained with the continuous reflow process.

18. (Previously Presented) The method of claim 1, wherein the optical lens is a microlens.

19. (Previously Presented) The method of claim 10, wherein the microlens are equidistantly spaced.

20. (Previously Presented) The method of claim 1, wherein the contour comprises a pre-existing elliptical gradient at an edge region of the at least one optical lens.

21. (New) A method for follow-up treatment of the contour of the surface of at least one as-formed convex optical lens, the method comprising:

providing the as-formed convex optical lens which is made of glass or a glass-type material and which has a convex lens surface delimited by a circumferential line abutting on a plane section surrounding said circumferential line and which has an opposing surface of the lens facing the convex lens surface, and wherein said optical lens is produced by means of a glass-flow process or by means of contactless hot stamping of a thermoplastic material and has as a result of said process an elliptical gradient in the region of said circumferential line,

placing along said circumferential line of the as-formed convex optical lens on said plane section a means matching said circumferential line and at least laterally bordering said convex lens surface,

performing a temperature treatment comprising heating said as-formed convex optical lens to a temperature of at least the transformation temperature of said glass or glass-type material, wherein pressure equalization prevails between said convex lens surface and said opposing surface of the lens, and said temperature treatment is conducted in conjunction with said means bordering said circumferential line in such a manner that said elliptical gradient is reduced or completely eliminated,

removing said means from said optical lens after a period of time, during which said optical lens undergoes said temperature treatment and subsequent cooling below said transformation temperature

wherein the steps are performed in the recited sequence and result in the modification of the elliptical gradient.